Fig.1

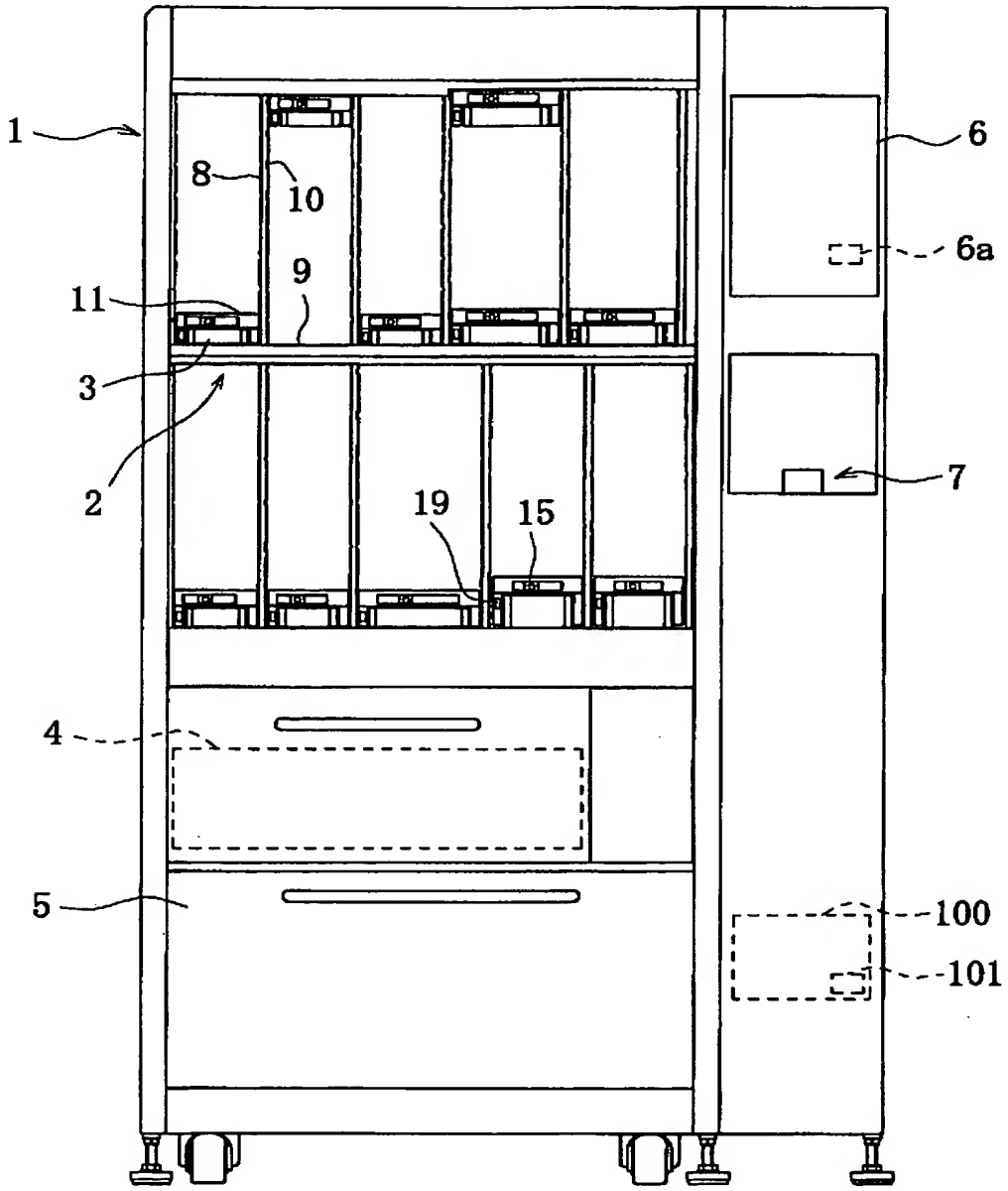


Fig.2

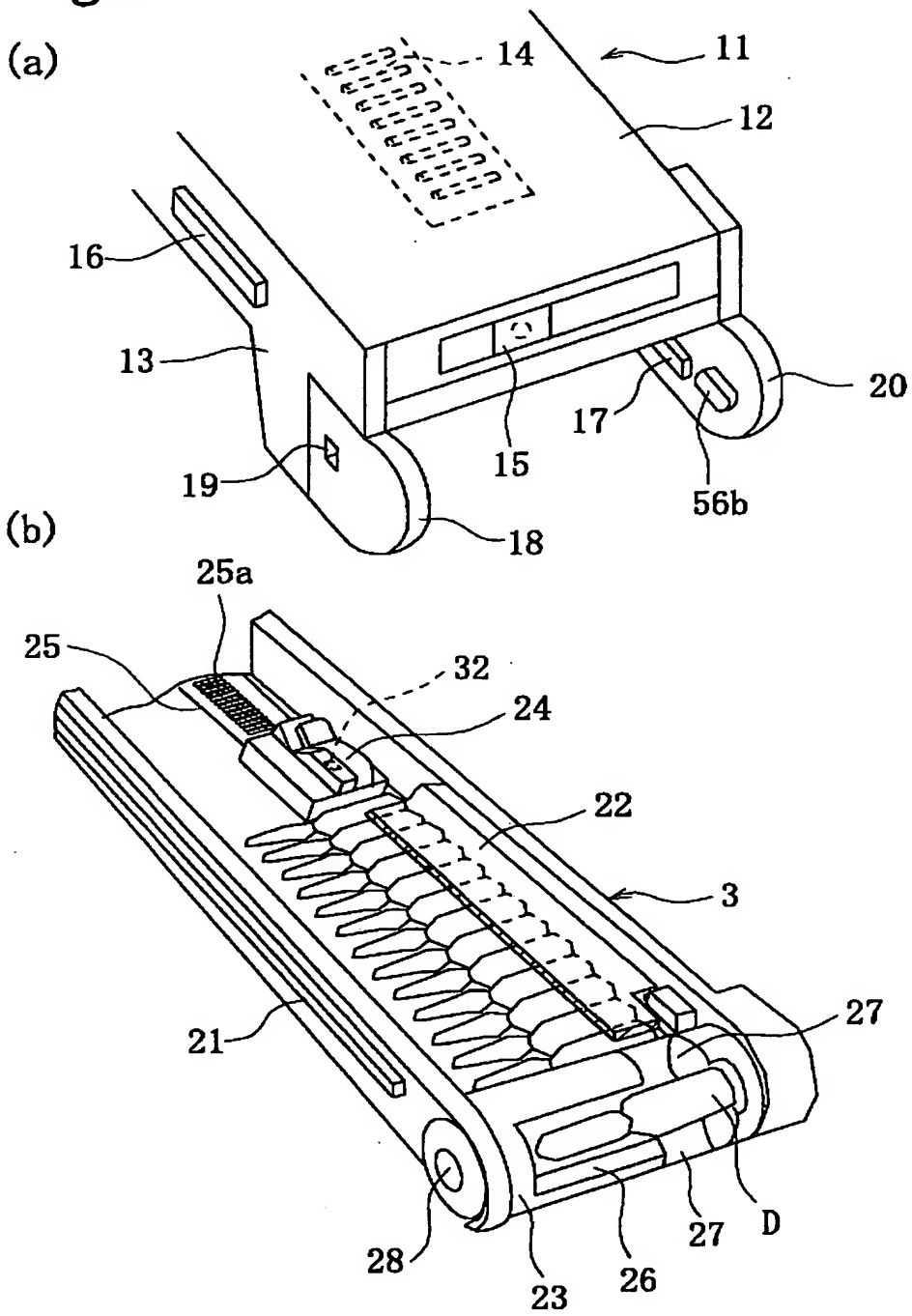

(a)
14
11
12
16
13
19
15
17
20
56b
18
(b)
25a
25
32
24
22
3
21
27
28
23
26
27
D

Fig.3

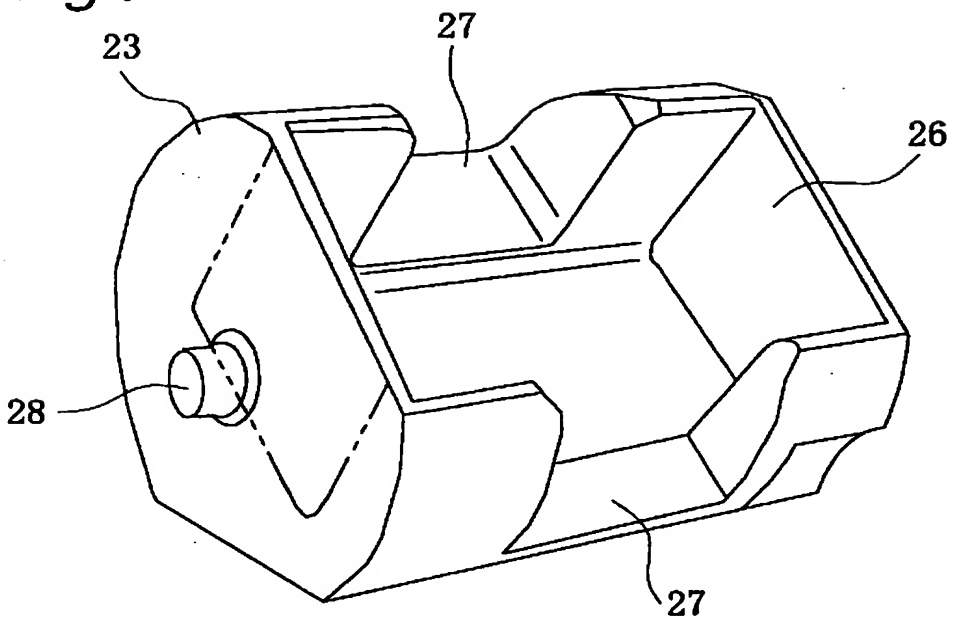


Fig.4

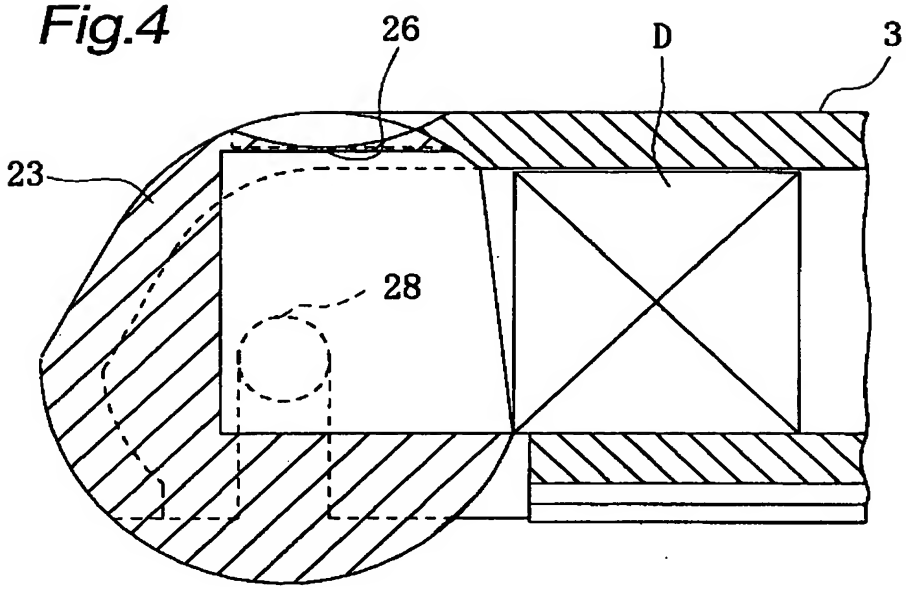


Fig.5

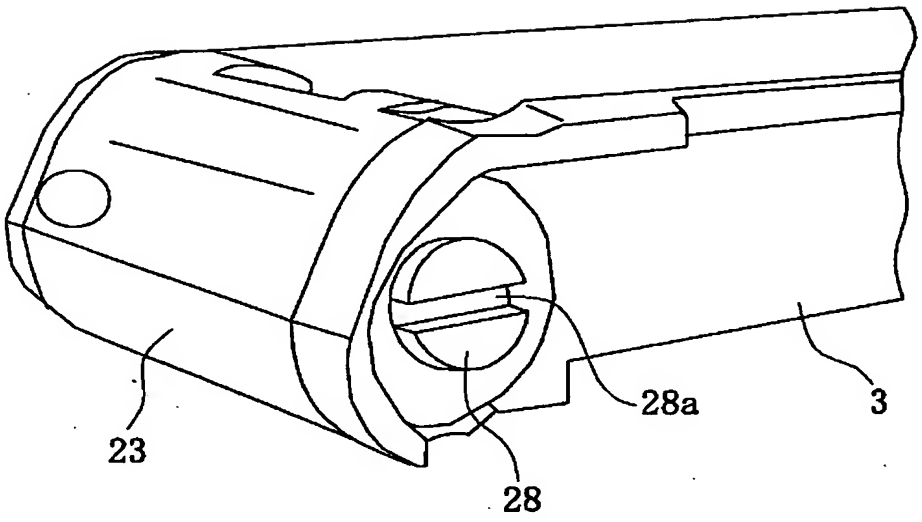


Fig.6

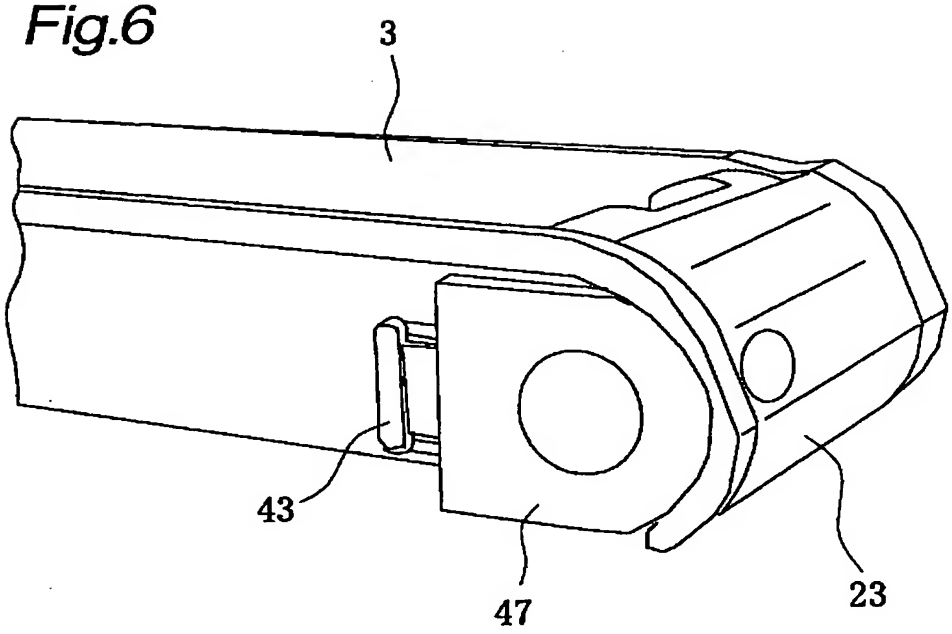


Fig.7

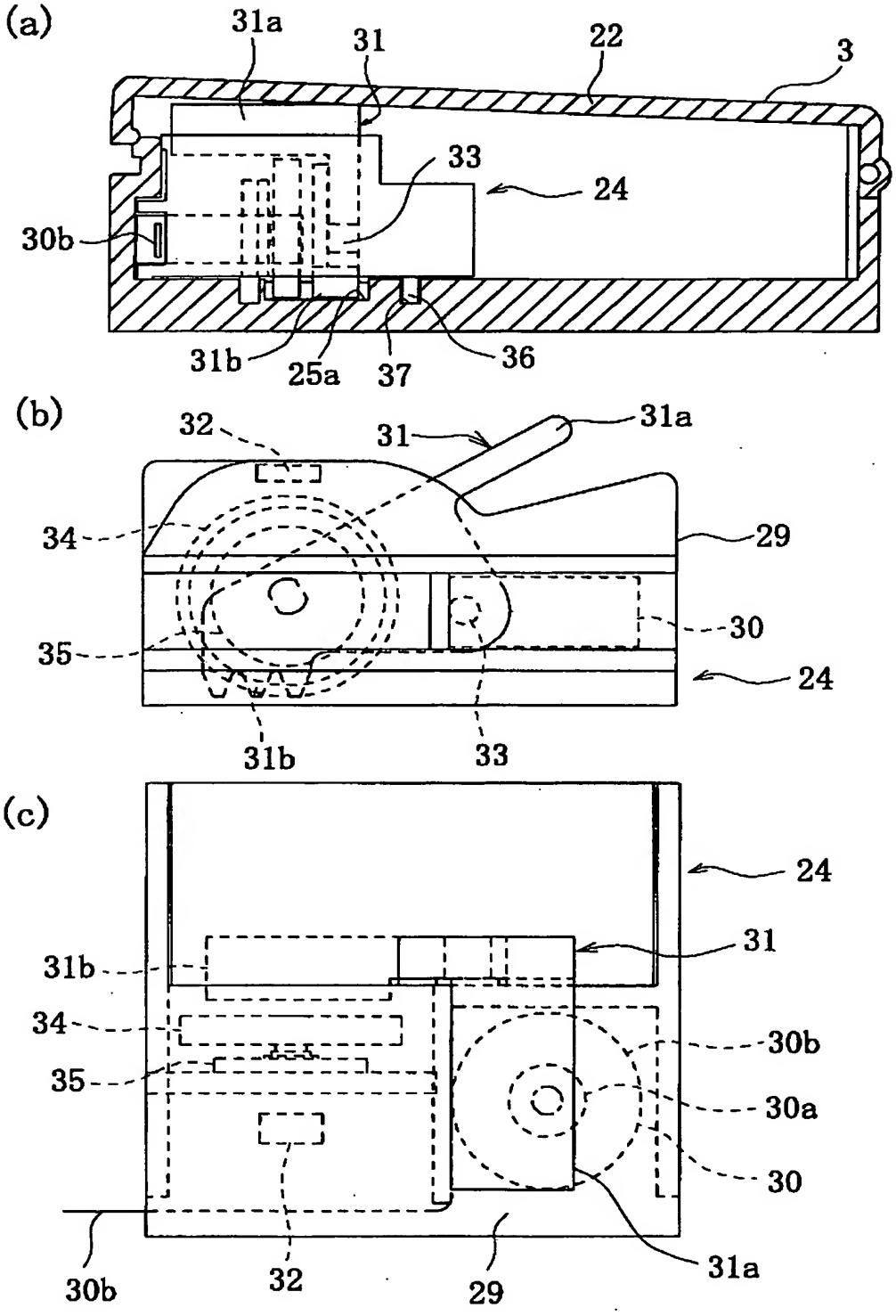
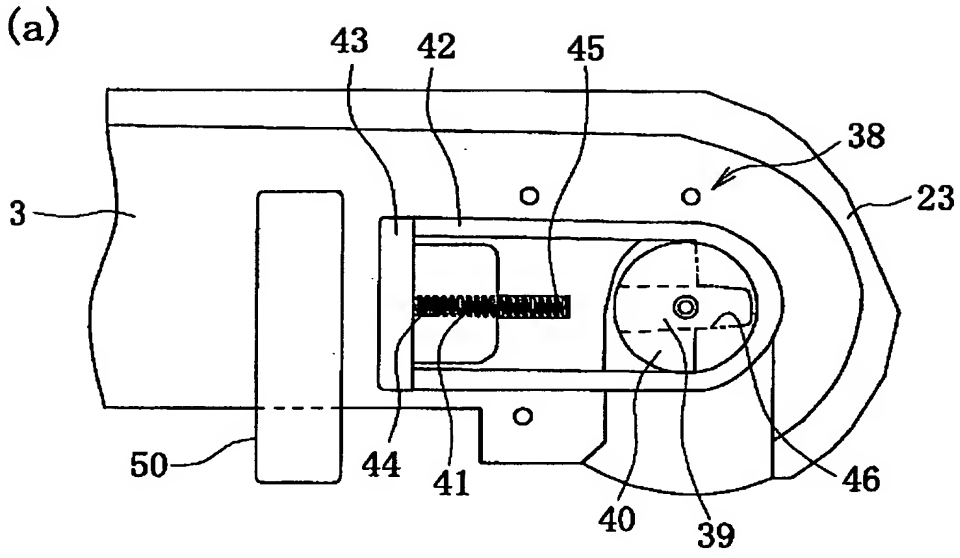

(a)
31a
31
22
3
33
24
30b
31b
25a
37
36
(b)
32
31
31a
34
29
30
35
24
31b
33
(c)
24
31
31b
34
30b
35
30a
30
30b
32
29
31a

Fig.8



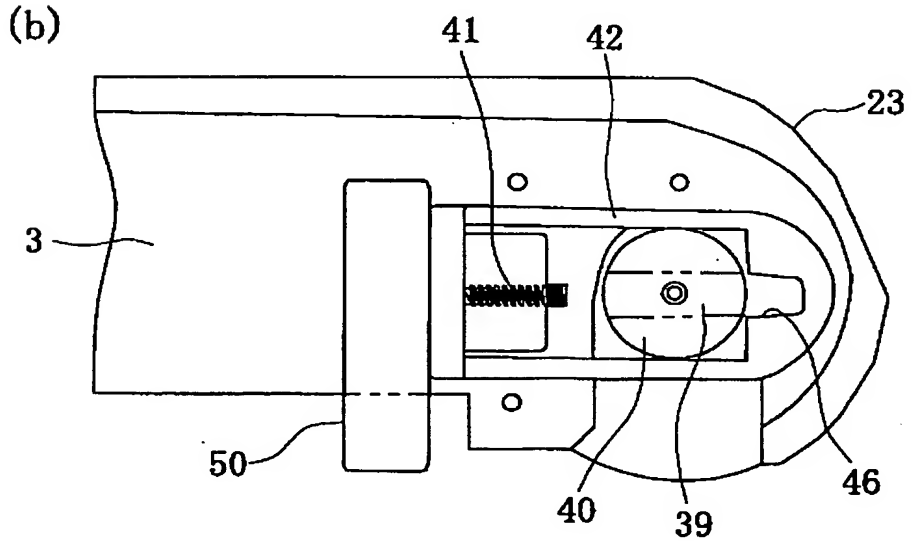


Fig.9

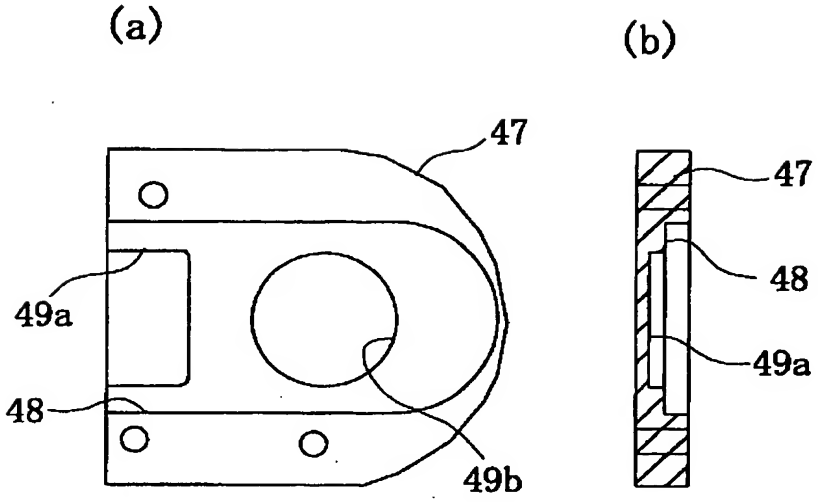


Fig.10

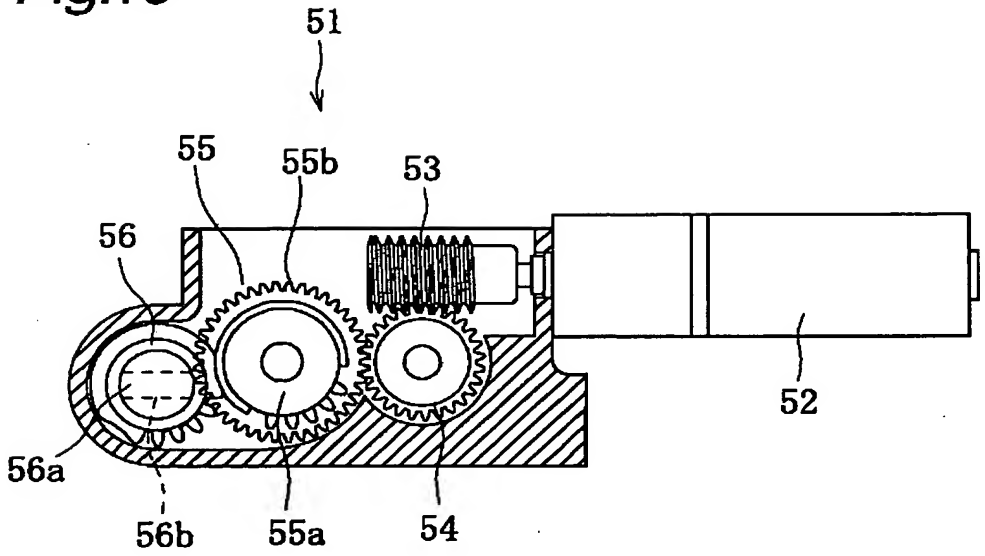


Fig.11

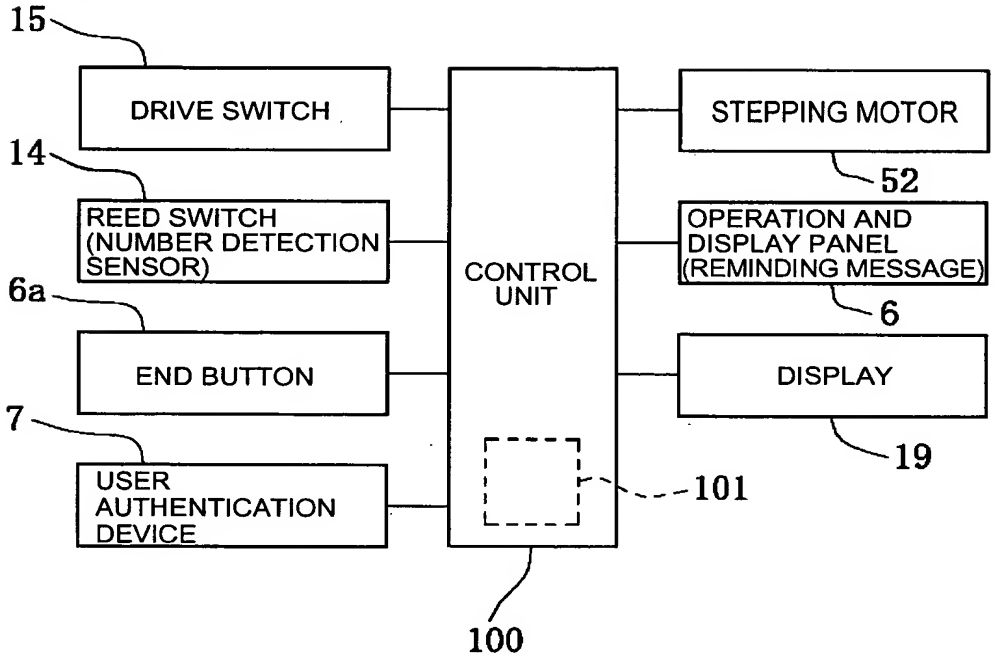

15
DRIVE SWITCH
14
REED SWITCH (NUMBER DETECTION SENSOR)
6a
END BUTTON
7
USER AUTHENTICATION DEVICE
CONTROL UNIT
101
100
STEPPING MOTOR
52
OPERATION AND DISPLAY PANEL (REMINDING MESSAGE)
6
DISPLAY
19

Fig.12

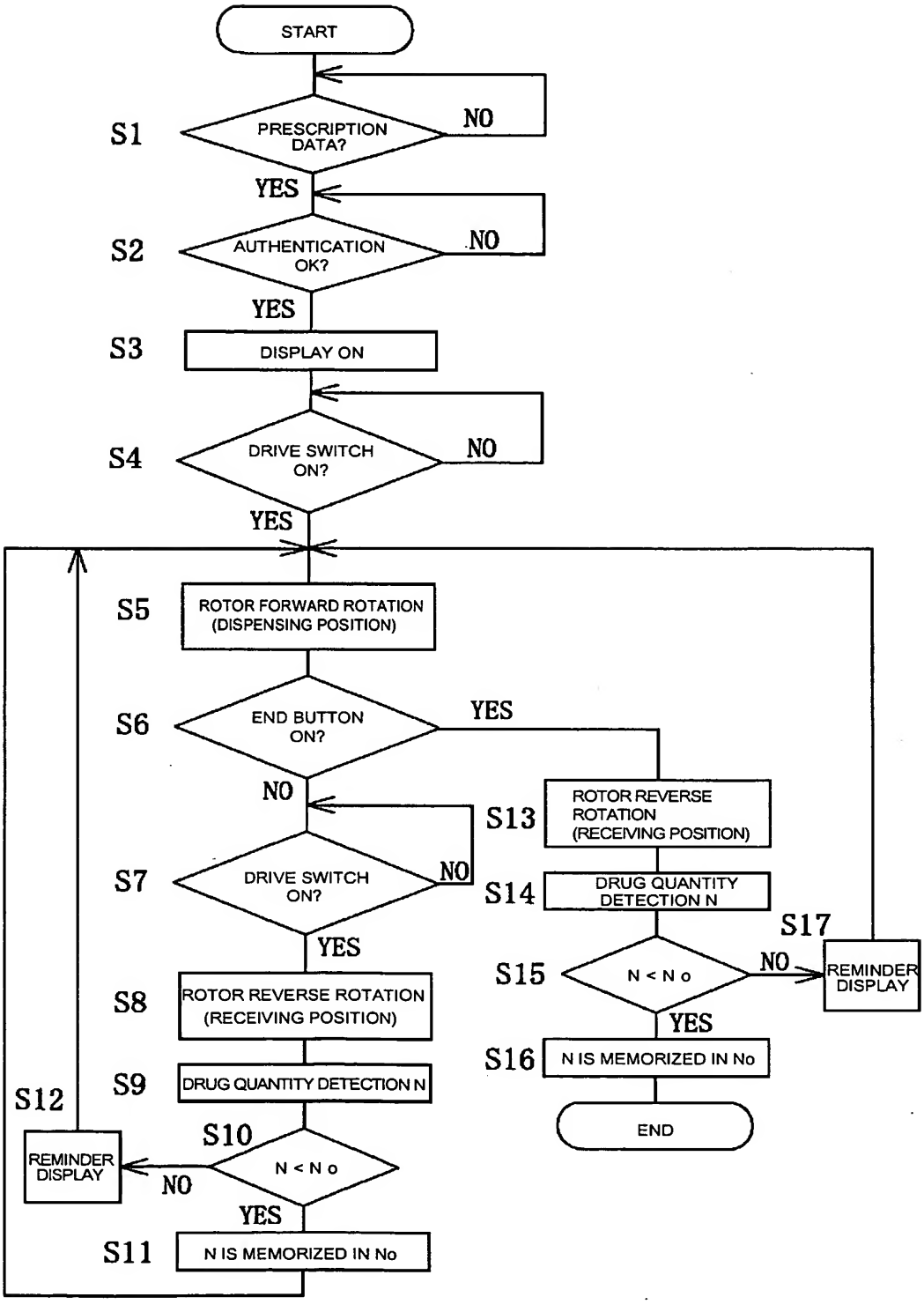

START
S1
PRESCRIPTION DATA?
NO
YES
S2
AUTHENTICATION OK?
NO
YES
S3
DISPLAY ON
S4
DRIVE SWITCH ON?
NO
YES
S5
ROTOR FORWARD ROTATION (DISPENSING POSITION)
S6
END BUTTON ON?
YES
NO
S7
DRIVE SWITCH ON?
NO
YES
S8
ROTOR REVERSE ROTATION (RECEIVING POSITION)
S9
DRUG QUANTITY DETECTION N
S10
N < N o
NO
YES
S11
N IS MEMORIZED IN No
S12
REMINDER DISPLAY
S13
ROTOR REVERSE ROTATION (RECEIVING POSITION)
S14
DRUG QUANTITY DETECTION N
S15
N < N o
NO
YES
S16
N IS MEMORIZED IN No
S17
REMINDER DISPLAY
END

Fig.13

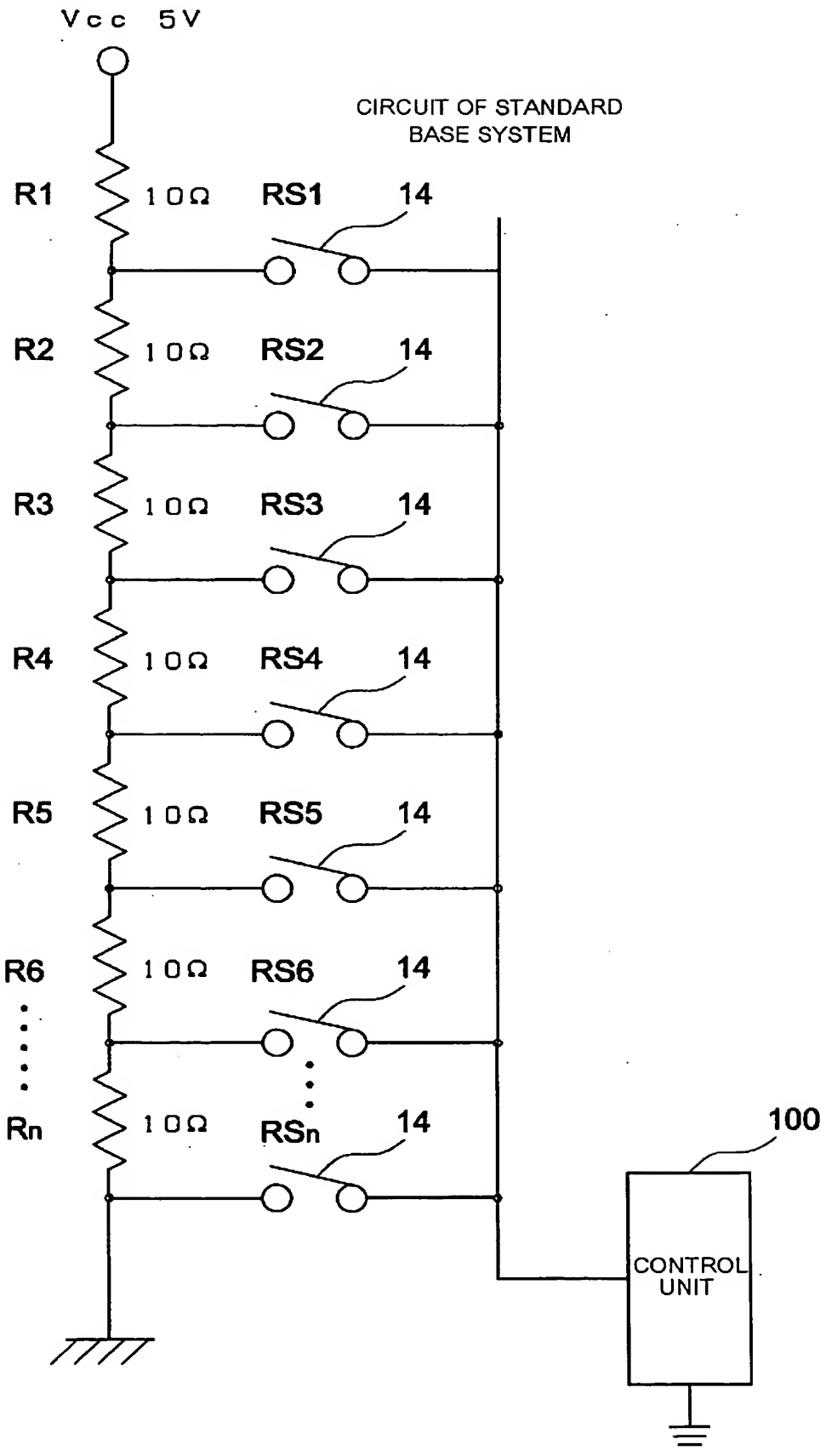

Vcc 5V
CIRCUIT OF STANDARD BASE SYSTEM
R1
10Ω
RS1
14
R2
10Ω
RS2
14
R3
10Ω
RS3
14
R4
10Ω
RS4
14
R5
10Ω
RS5
14
R6
10Ω
RS6
14
Rn
10Ω
RSn
14
100
CONTROL UNIT

Fig.14

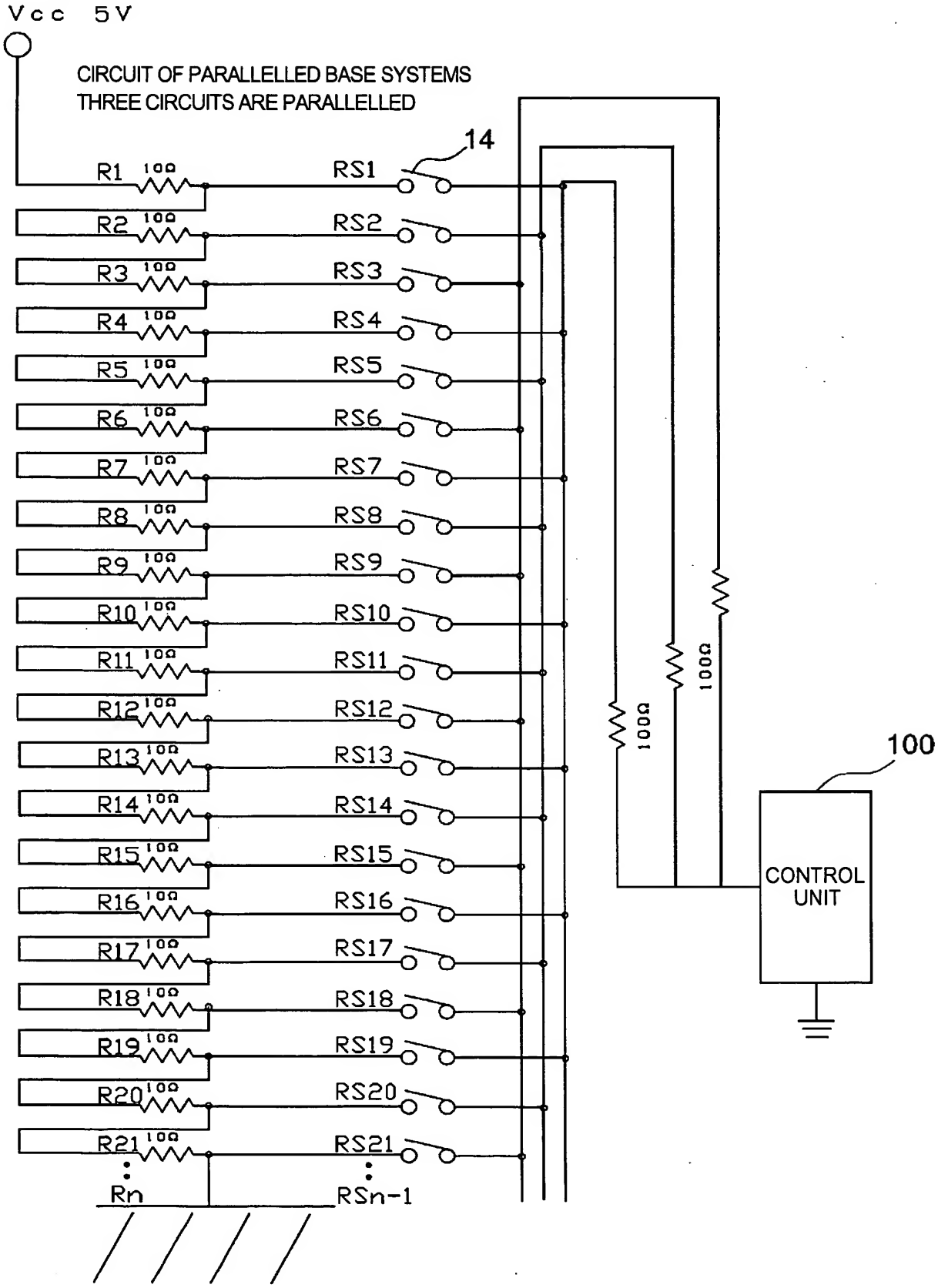

Vcc 5V
CIRCUIT OF PARALLELLED BASE SYSTEMS
THREE CIRCUITS ARE PARALLELLED
14
R1 100Ω
R2 100Ω
R3 100Ω
R4 100Ω
R5 100Ω
R6 100Ω
R7 100Ω
R8 100Ω
R9 100Ω
R10 100Ω
R11 100Ω
R12 100Ω
R13 100Ω
R14 100Ω
R15 100Ω
R16 100Ω
R17 100Ω
R18 100Ω
R19 100Ω
R20 100Ω
R21 100Ω
Rn
RS1
RS2
RS3
RS4
RS5
RS6
RS7
RS8
RS9
RS10
RS11
RS12
RS13
RS14
RS15
RS16
RS17
RS18
RS19
RS20
RS21
RSn-1
100Ω
100Ω
100
CONTROL UNIT

Fig.15

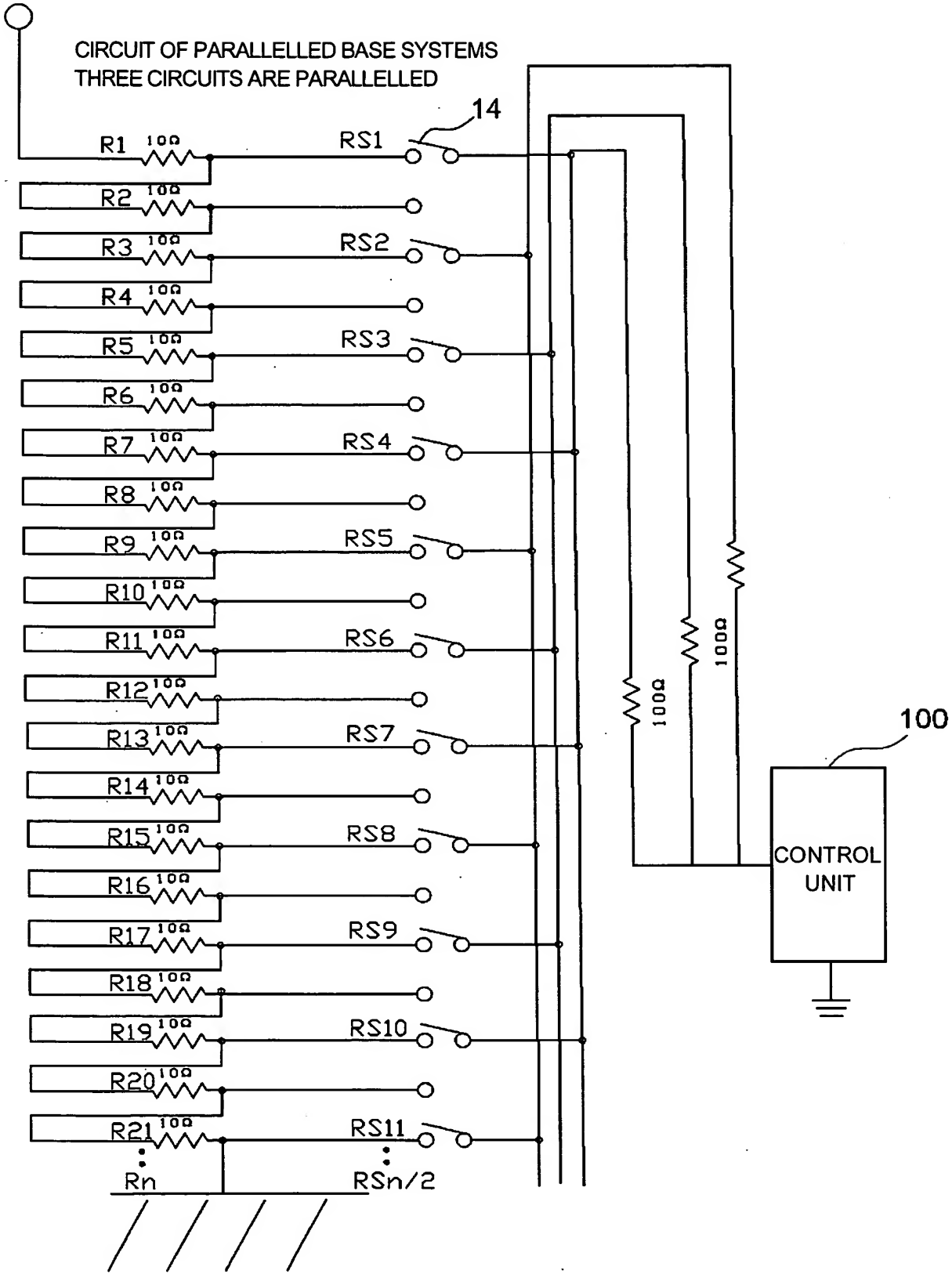

Vcc 5V
CIRCUIT OF PARALLELLED BASE SYSTEMS
THREE CIRCUITS ARE PARALLELLED
14
R1 100Ω
R2 100Ω
R3 100Ω
R4 100Ω
R5 100Ω
R6 100Ω
R7 100Ω
R8 100Ω
R9 100Ω
R10 100Ω
R11 100Ω
R12 100Ω
R13 100Ω
R14 100Ω
R15 100Ω
R16 100Ω
R17 100Ω
R18 100Ω
R19 100Ω
R20 100Ω
R21 100Ω
Rn
RS1
RS2
RS3
RS4
RS5
RS6
RS7
RS8
RS9
RS10
RS11
RSn/2
100Ω
100Ω
100
CONTROL UNIT

Fig.16

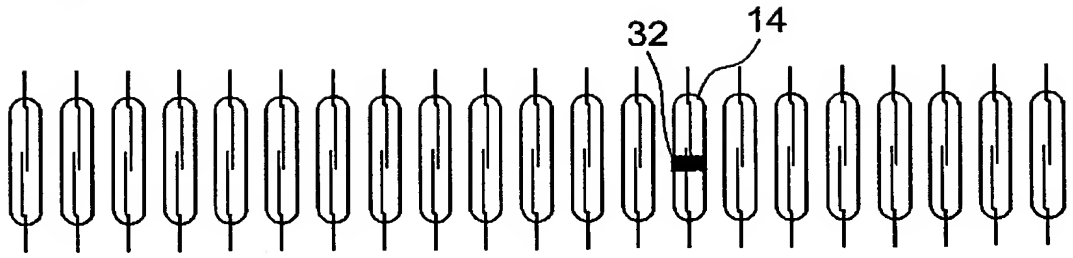


Fig.17

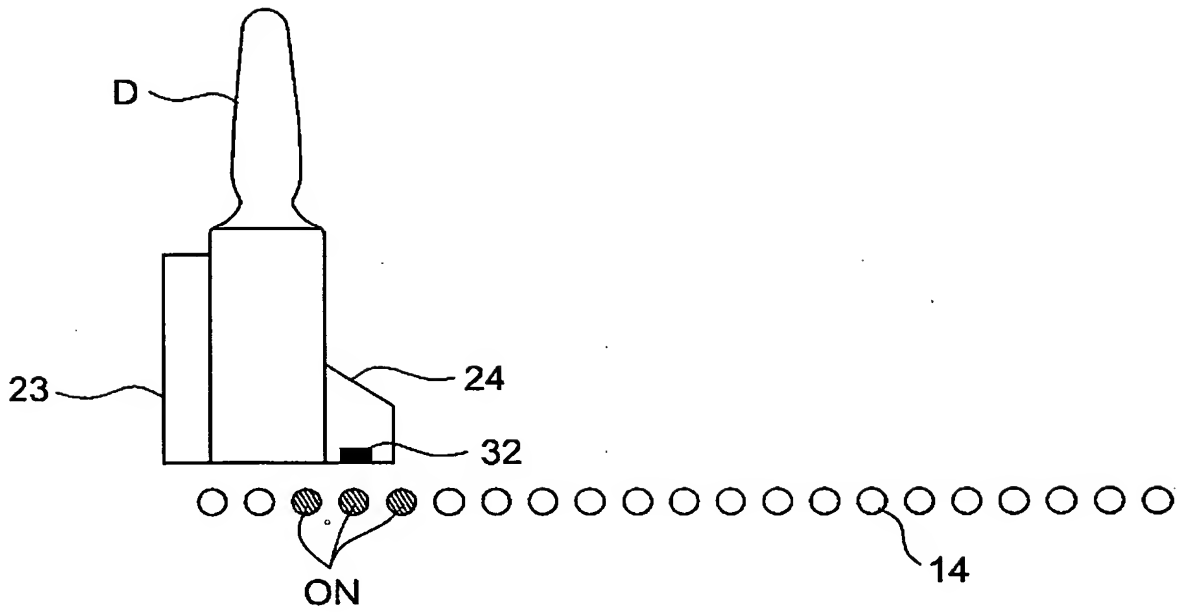


Fig.18

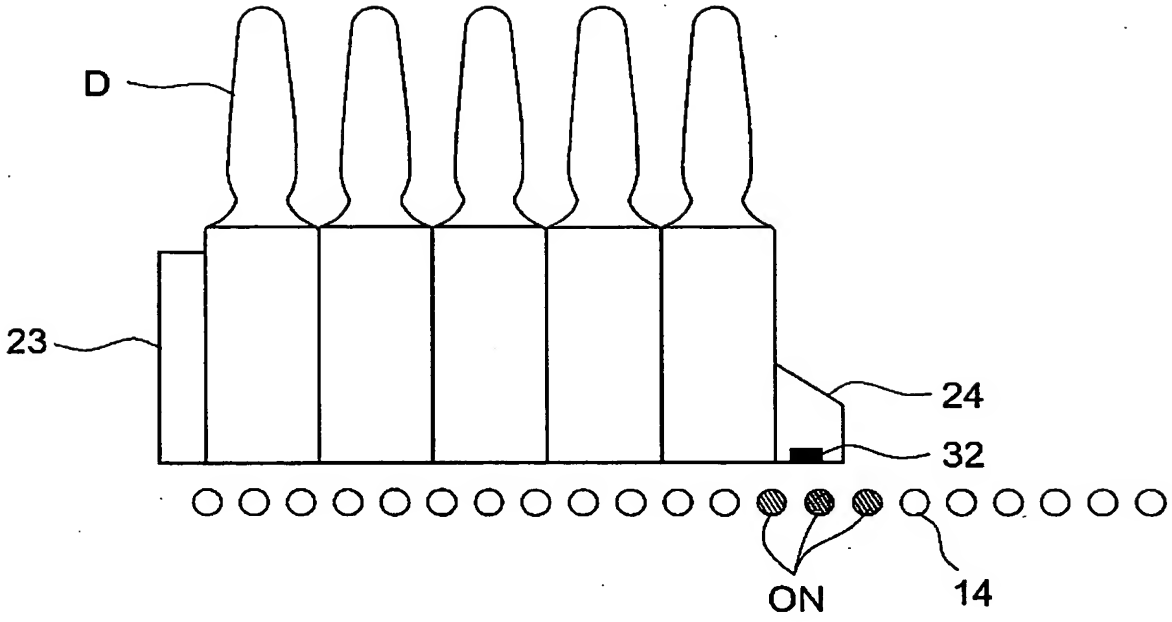


Fig.19

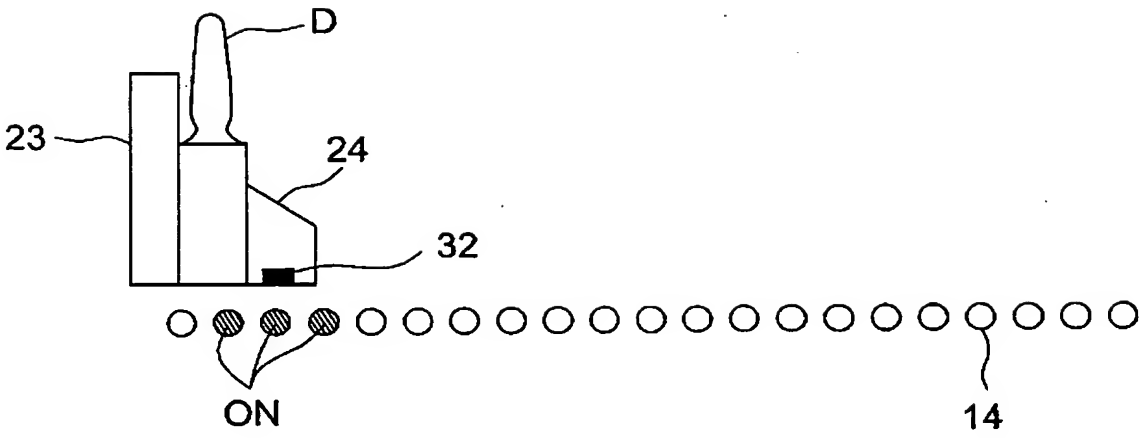


Fig.20

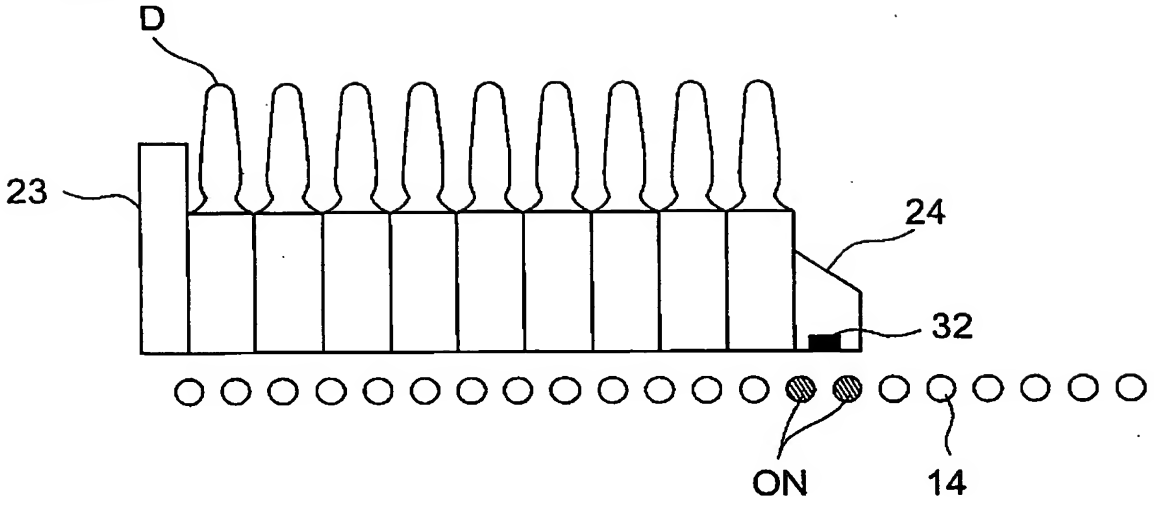


Fig.21

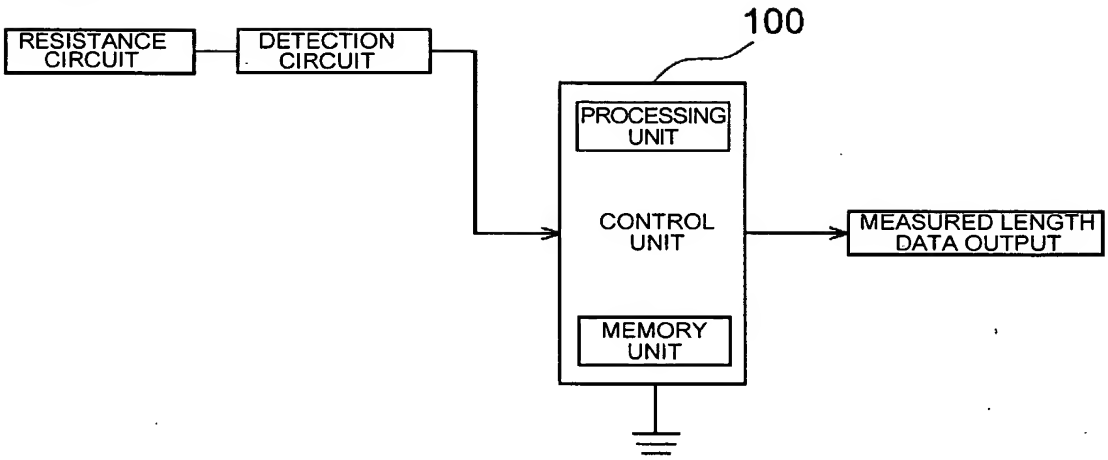

RESISTANCE CIRCUIT
DETECTION CIRCUIT
100
PROCESSING UNIT
CONTROL UNIT
MEMORY UNIT
MEASURED LENGTH DATA OUTPUT

Fig.22

METHOD FOR SETTING LENGTH MEASUREMENT STANDARD

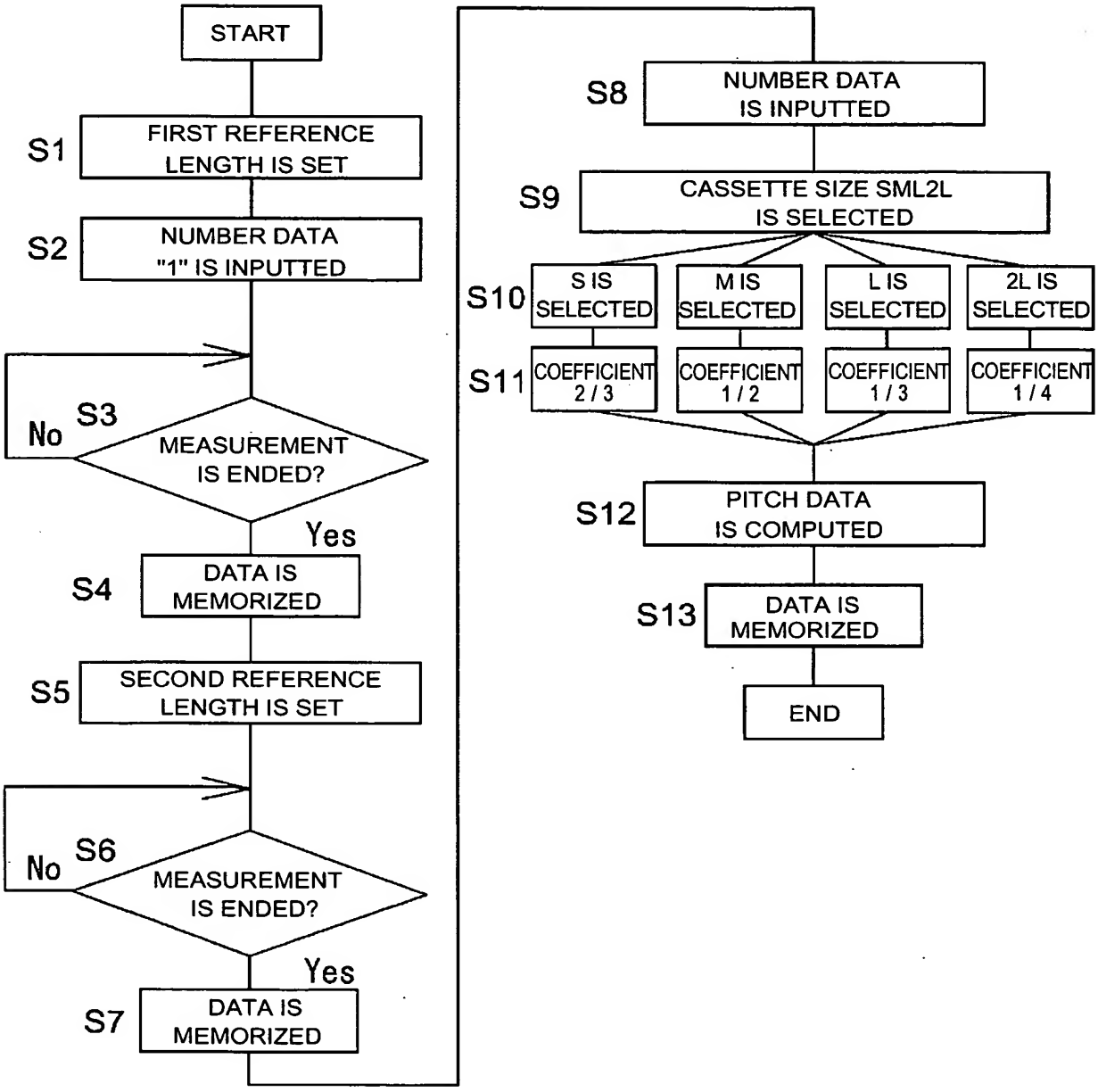


Fig.23

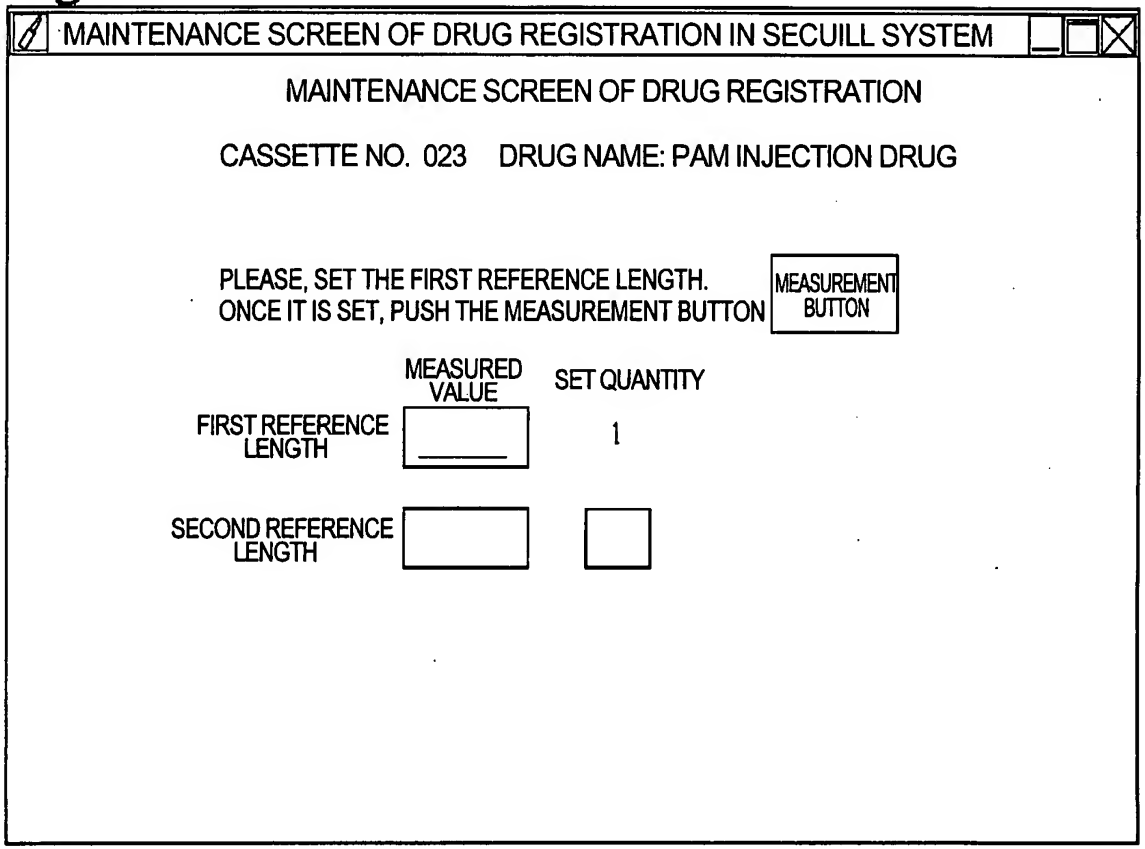

MAINTENANCE SCREEN OF DRUG REGISTRATION IN SECUILL SYSTEM
MAINTENANCE SCREEN OF DRUG REGISTRATION
CASSETTE NO. 023 DRUG NAME: PAM INJECTION DRUG
PLEASE, SET THE FIRST REFERENCE LENGTH.
ONCE IT IS SET, PUSH THE MEASUREMENT BUTTON
MEASUREMENT BUTTON
MEASURED VALUE
SET QUANTITY
FIRST REFERENCE LENGTH
1
SECOND REFERENCE LENGTH

Fig.24

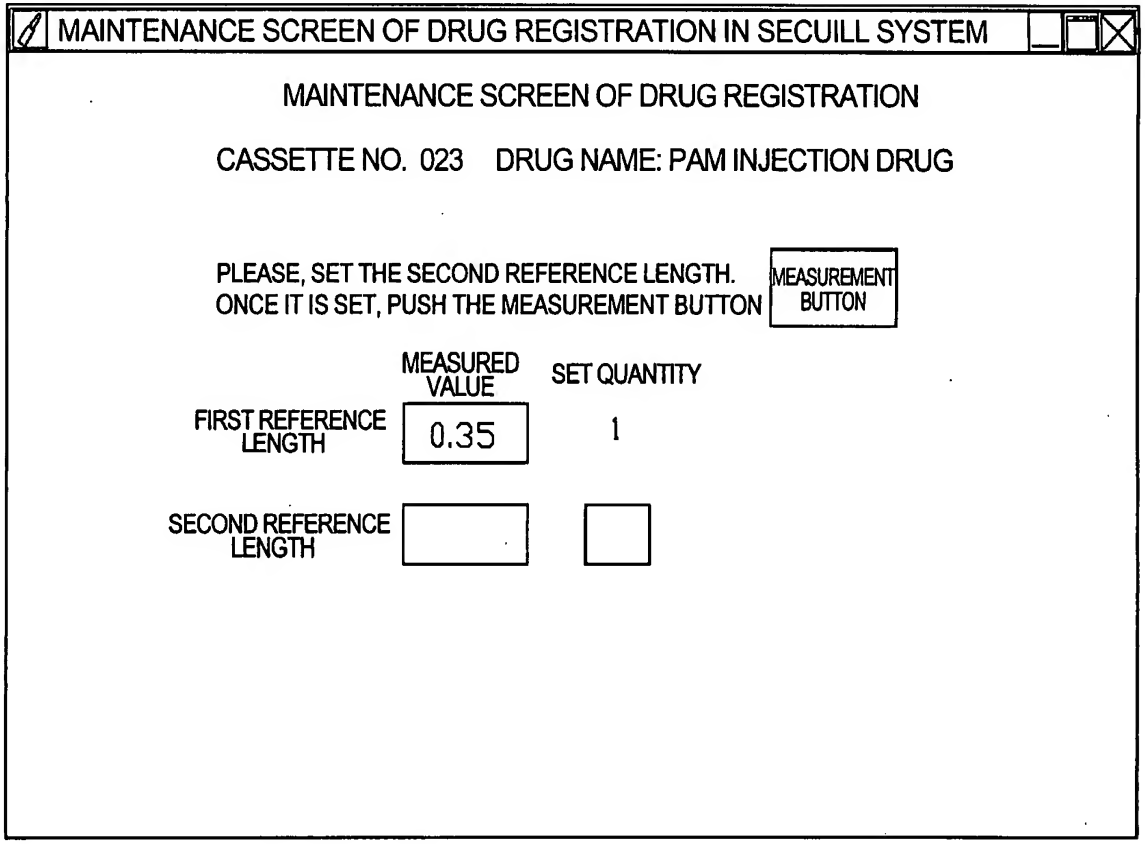

MAINTENANCE SCREEN OF DRUG REGISTRATION IN SECUILL SYSTEM
MAINTENANCE SCREEN OF DRUG REGISTRATION
CASSETTE NO. 023 DRUG NAME: PAM INJECTION DRUG
PLEASE, SET THE SECOND REFERENCE LENGTH.
ONCE IT IS SET, PUSH THE MEASUREMENT BUTTON
MEASUREMENT BUTTON
MEASURED VALUE
SET QUANTITY
FIRST REFERENCE LENGTH
0.35
1
SECOND REFERENCE LENGTH

Fig.25

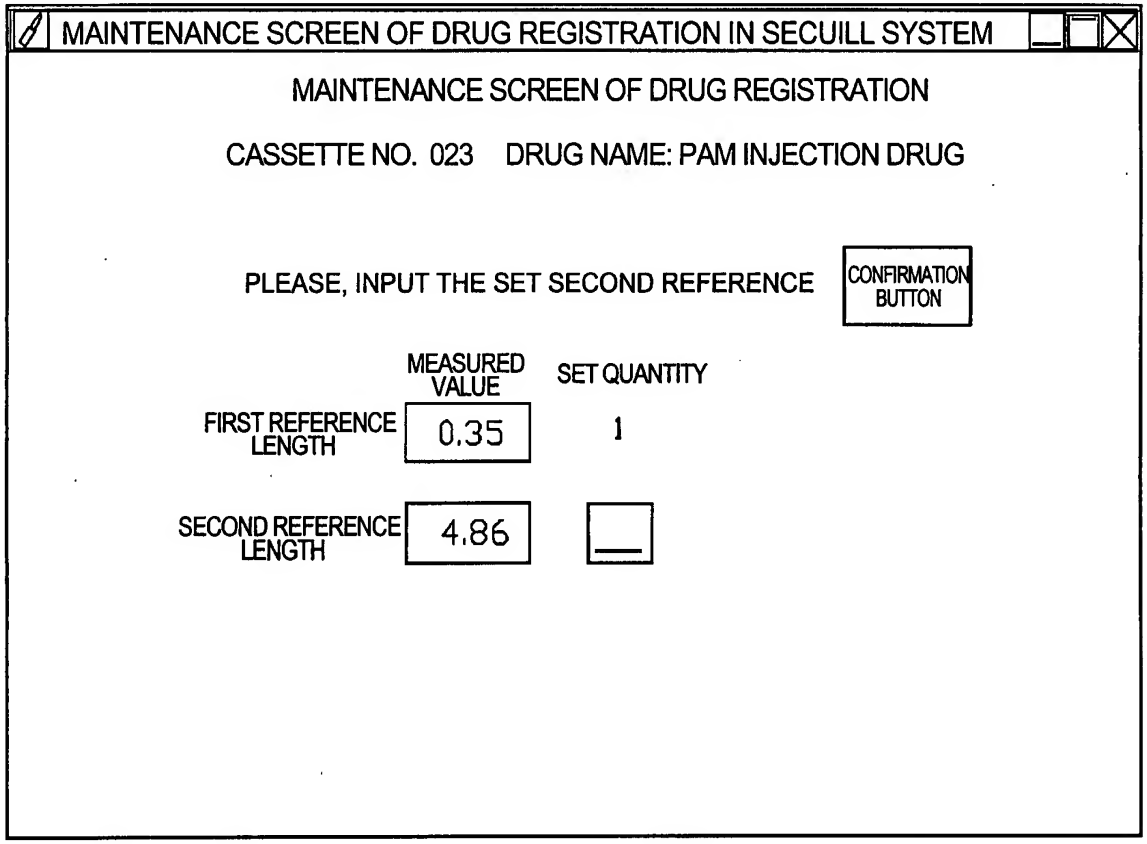

MAINTENANCE SCREEN OF DRUG REGISTRATION IN SECUILL SYSTEM
MAINTENANCE SCREEN OF DRUG REGISTRATION
CASSETTE NO. 023 DRUG NAME: PAM INJECTION DRUG
PLEASE, INPUT THE SET SECOND REFERENCE
CONFIRMATION BUTTON
MEASURED VALUE
SET QUANTITY
FIRST REFERENCE LENGTH
0.35
1
SECOND REFERENCE LENGTH
4.86

Fig.26

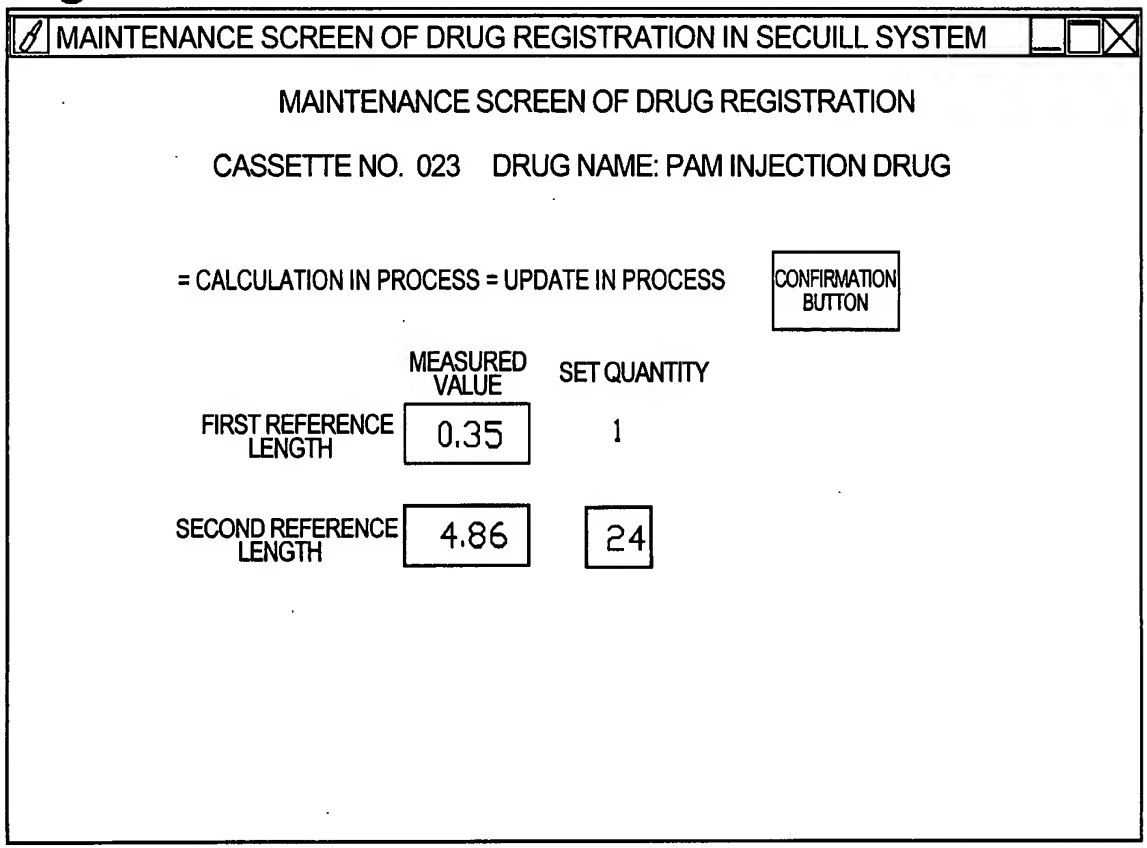

MAINTENANCE SCREEN OF DRUG REGISTRATION IN SECUILL SYSTEM
MAINTENANCE SCREEN OF DRUG REGISTRATION
CASSETTE NO. 023 DRUG NAME: PAM INJECTION DRUG
= CALCULATION IN PROCESS = UPDATE IN PROCESS
CONFIRMATION BUTTON
MEASURED VALUE
SET QUANTITY
FIRST REFERENCE LENGTH
0.35
1
SECOND REFERENCE LENGTH
4.86
24

Fig.27

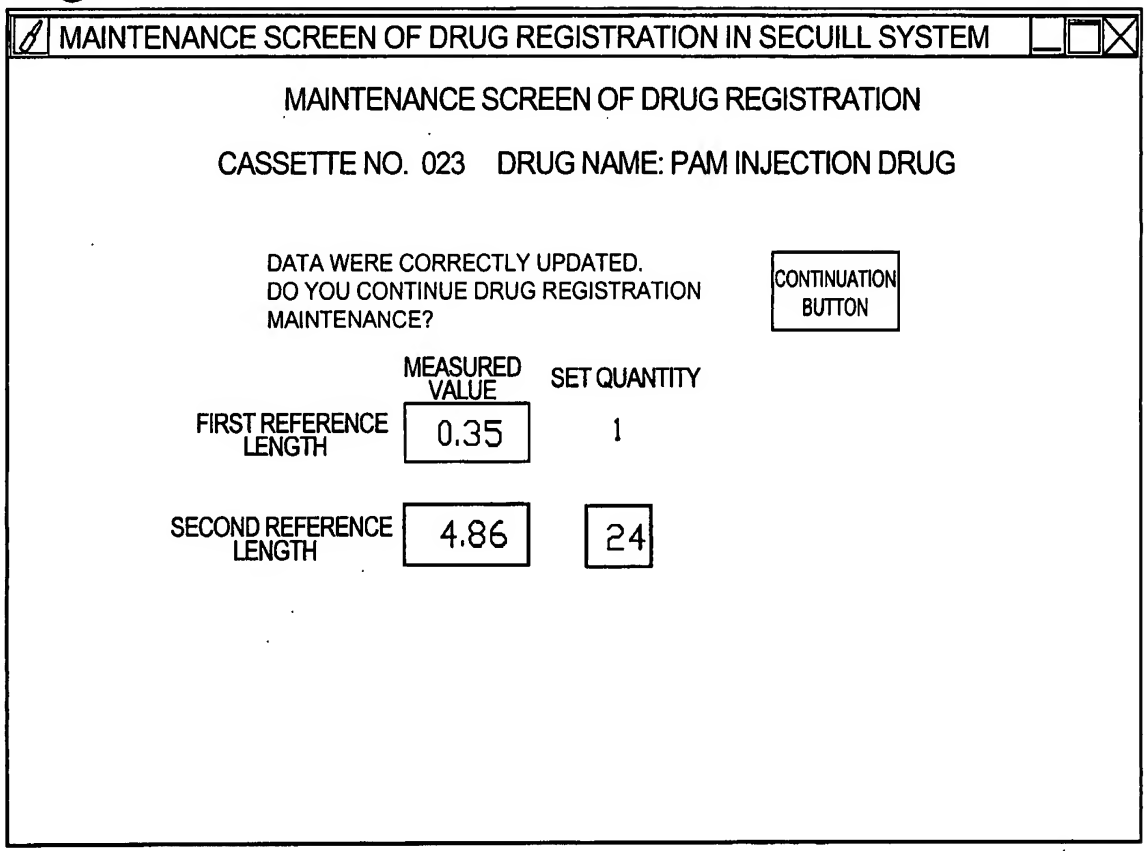
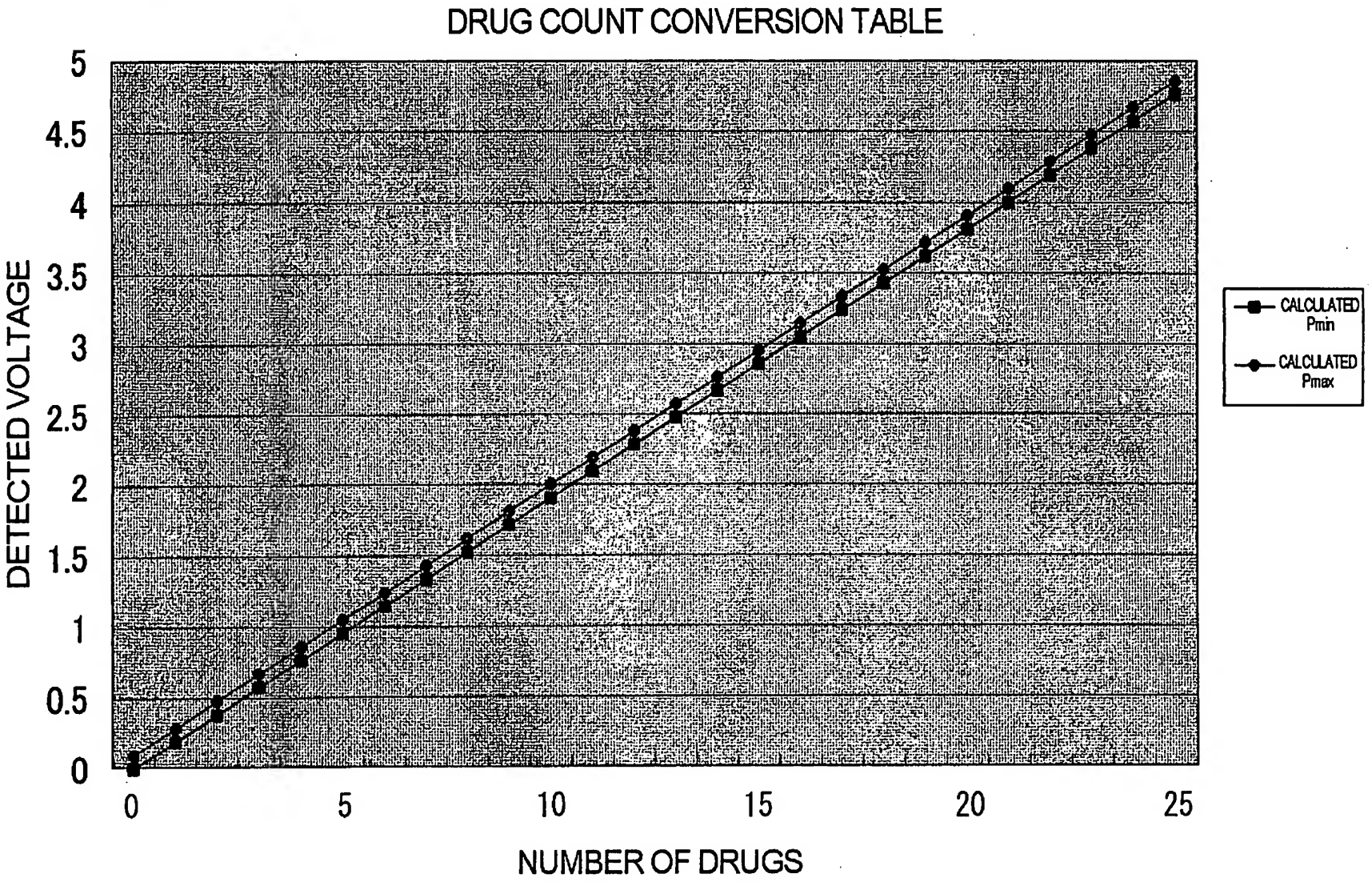

MAINTENANCE SCREEN OF DRUG REGISTRATION IN SECUILL SYSTEM
MAINTENANCE SCREEN OF DRUG REGISTRATION
CASSETTE NO. 023 DRUG NAME: PAM INJECTION DRUG
DATA WERE CORRECTLY UPDATED.
DO YOU CONTINUE DRUG REGISTRATION MAINTENANCE?
CONTINUATION BUTTON
MEASURED VALUE
SET QUANTITY
FIRST REFERENCE LENGTH
0.35
1
SECOND REFERENCE LENGTH
4.86
24

Fig.28

NUMBER OF DRUGS	CALCULATED Pmin	CALCULATED Pmax
0	0	0.09525
1	0.1905	0.28575
2	0.381	0.47625
3	0.5715	0.66675
4	0.762	0.85725
5	0.9525	1.04775
6	1.143	1.23825
7	1.3335	1.42875
8	1.524	1.61925
9	1.7145	1.80975
10	1.905	2.00025
11	2.0955	2.19075
12	2.286	2.38125
13	2.4765	2.57175
14	2.667	2.76225
15	2.8575	2.95275
16	3.048	3.14325
17	3.2385	3.33375
18	3.429	3.52425
19	3.6195	3.71475
20	3.81	3.90525
21	4.0005	4.09575
22	4.191	4.28625
23	4.3815	4.47675
24	4.572	4.66725
25	4.7625	4.85775

Fig.29


DRUG COUNT CONVERSION TABLE
DETECTED VOLTAGE
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
0
5
10
15
20
25
NUMBER OF DRUGS
CALCULATED Pmin
CALCULATED Pmax

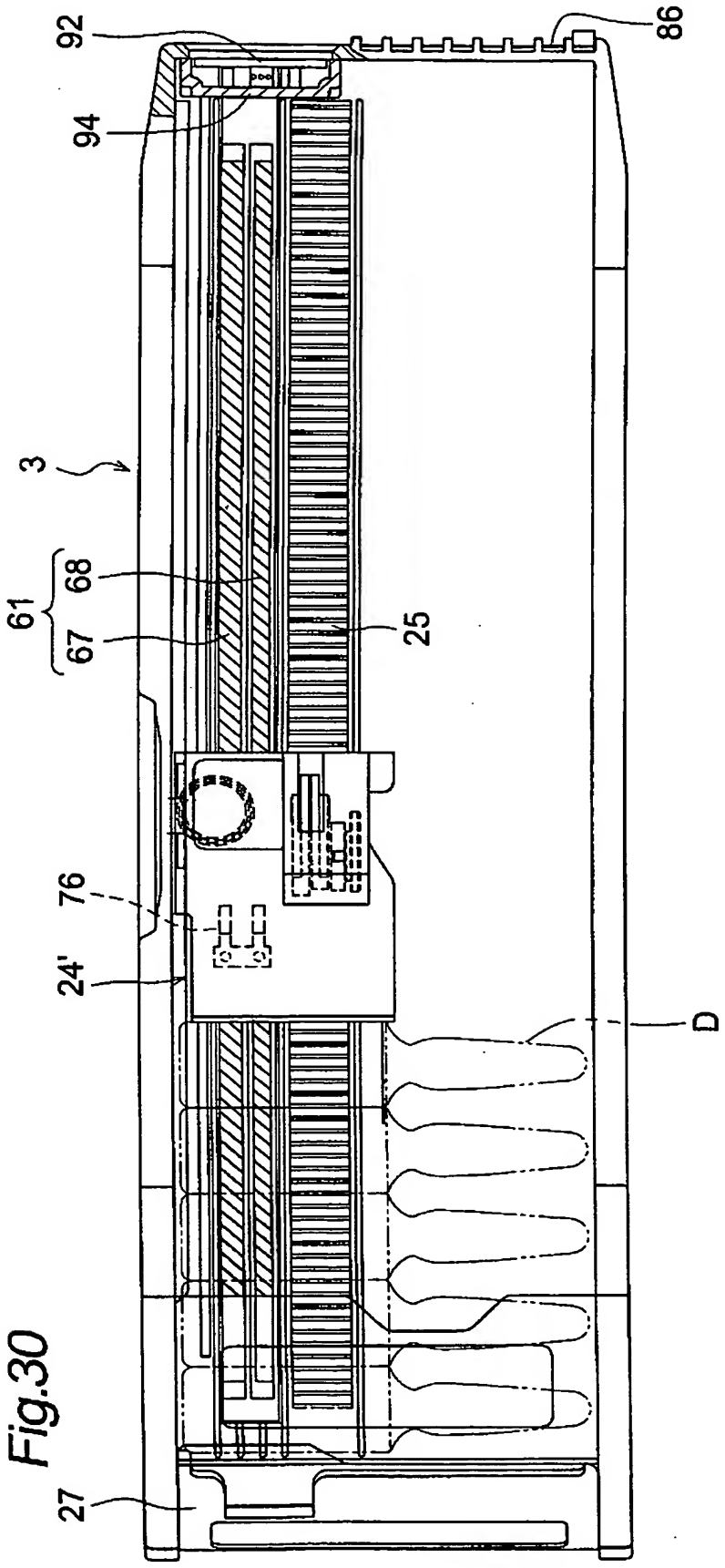
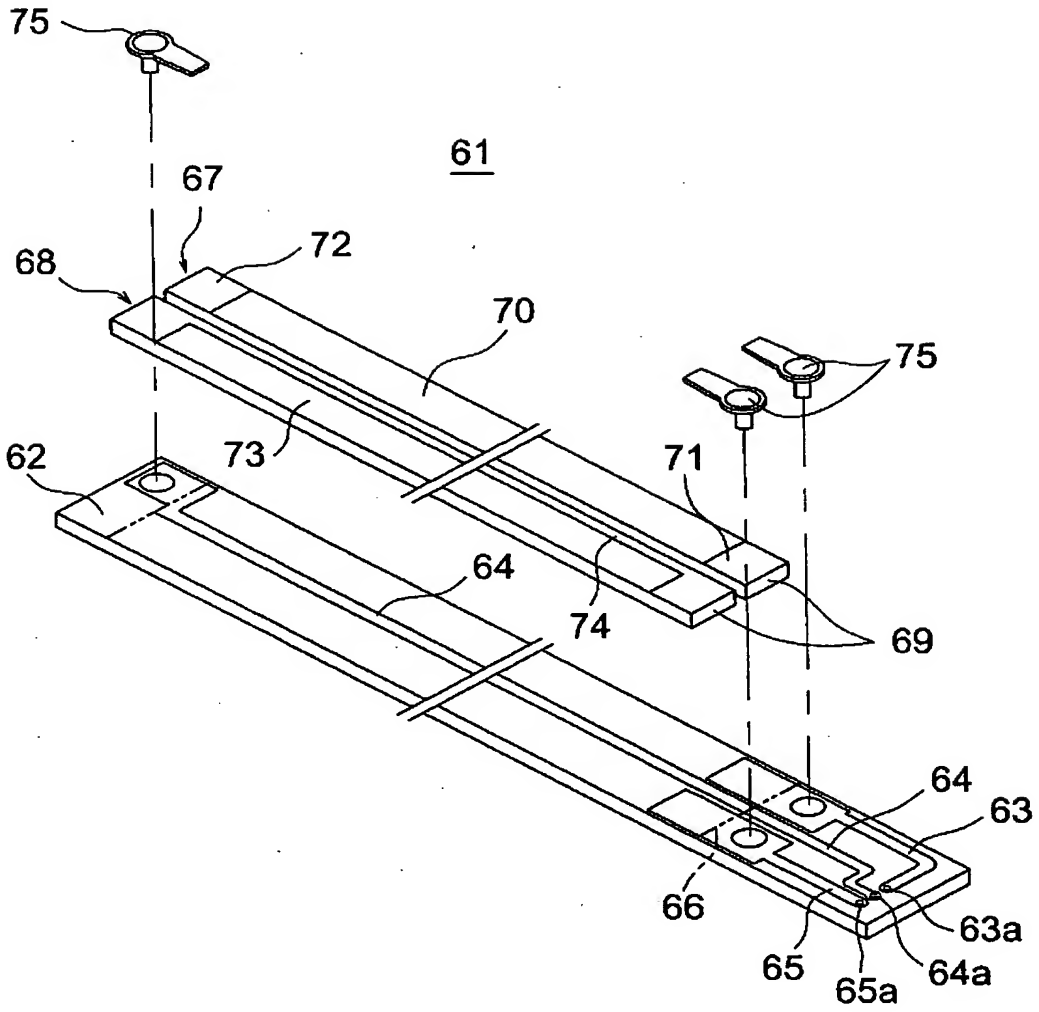


Fig.30

Fig.31



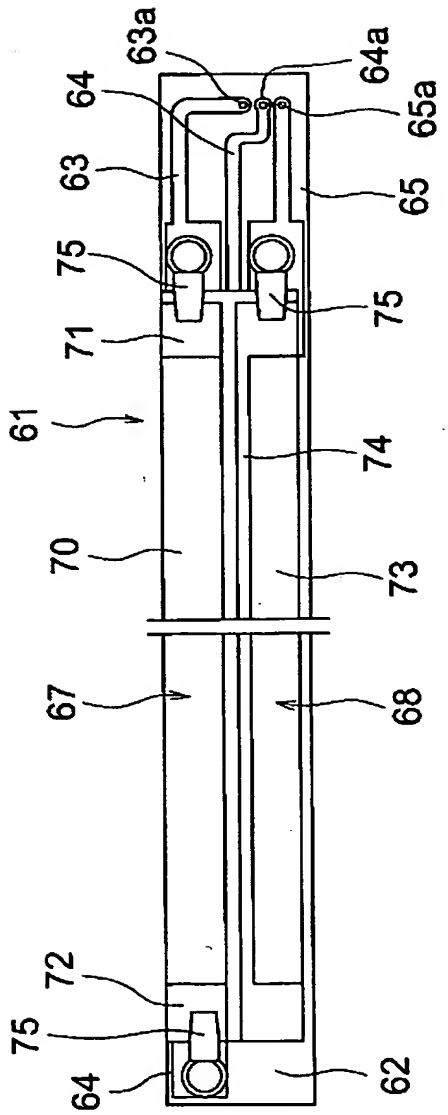
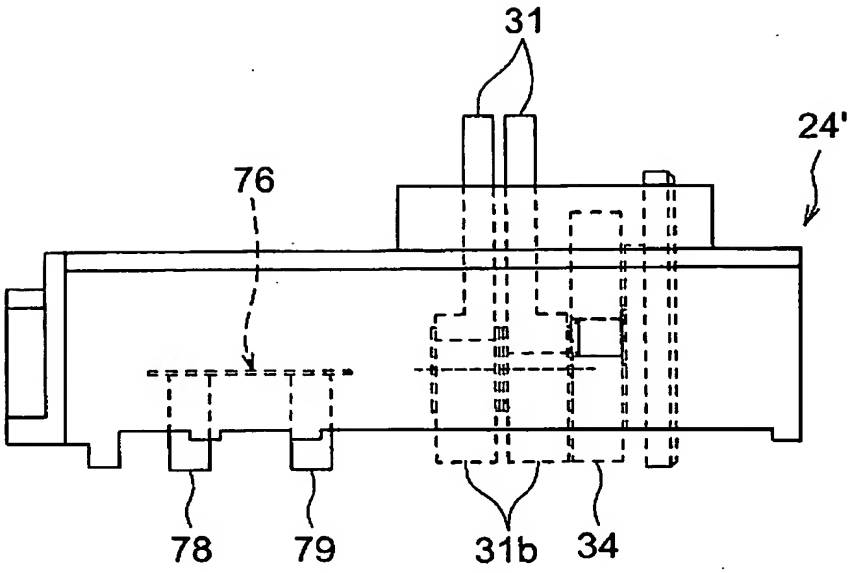


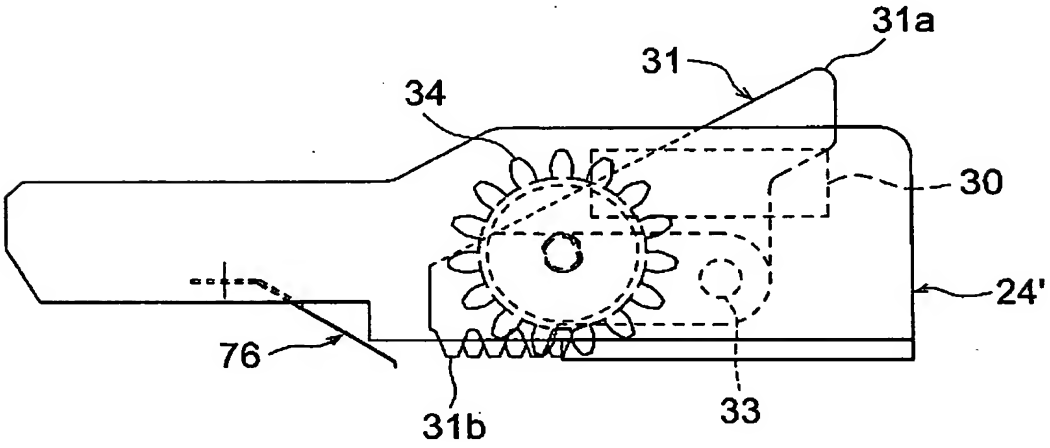
Fig.32

Fig.33

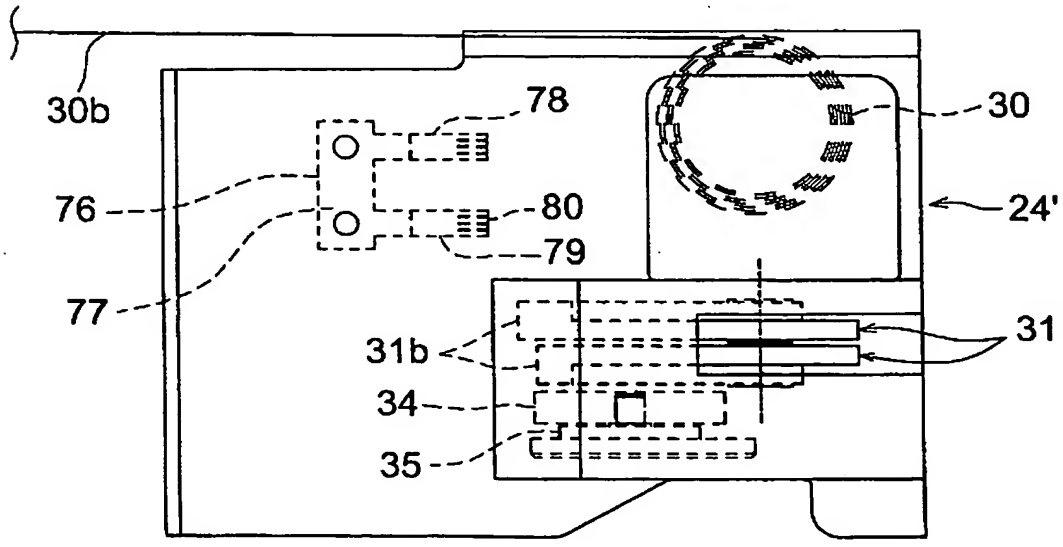
(a)


31
24'
76
78
79
31b
34

(b)


31a
31
34
30
24'
76
31b
33

(c)


30b
78
30
76
80
24'
79
77
31
31b
34
35

Flg.34

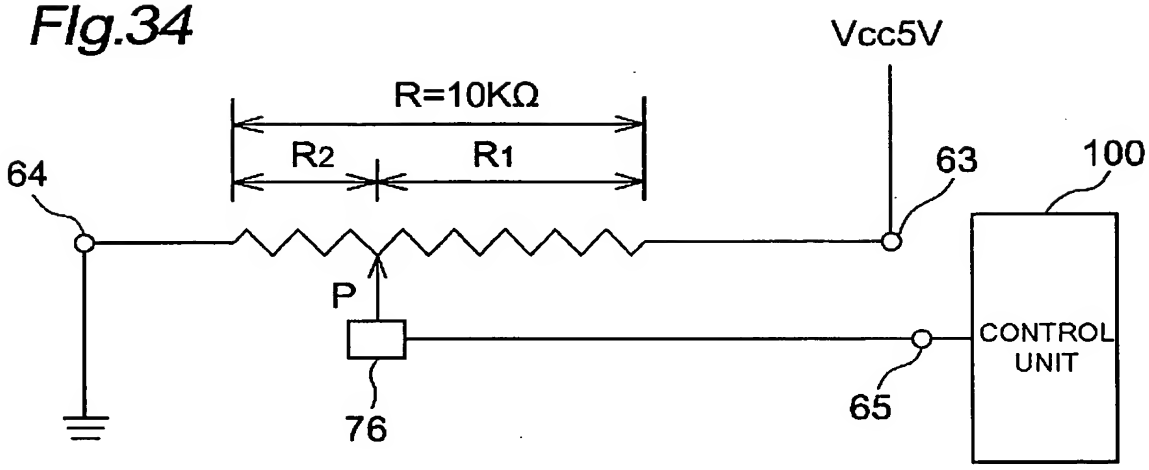


Fig.35

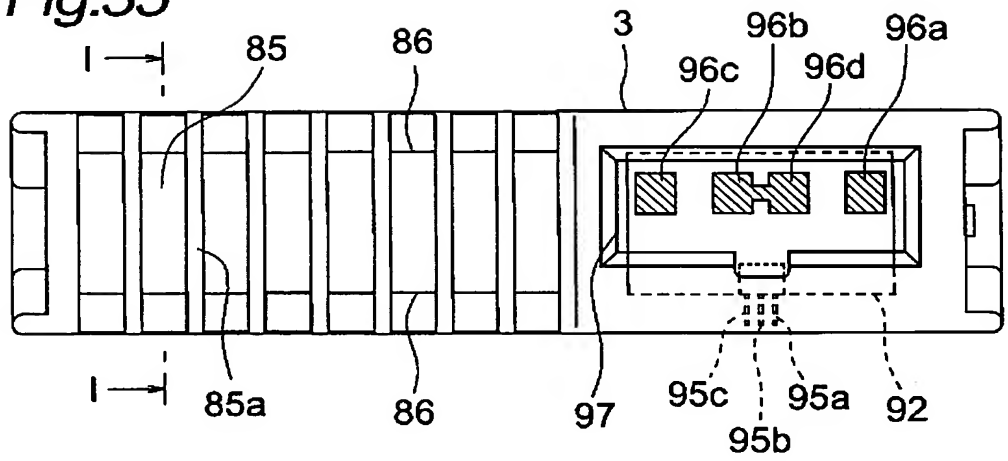


Fig.36

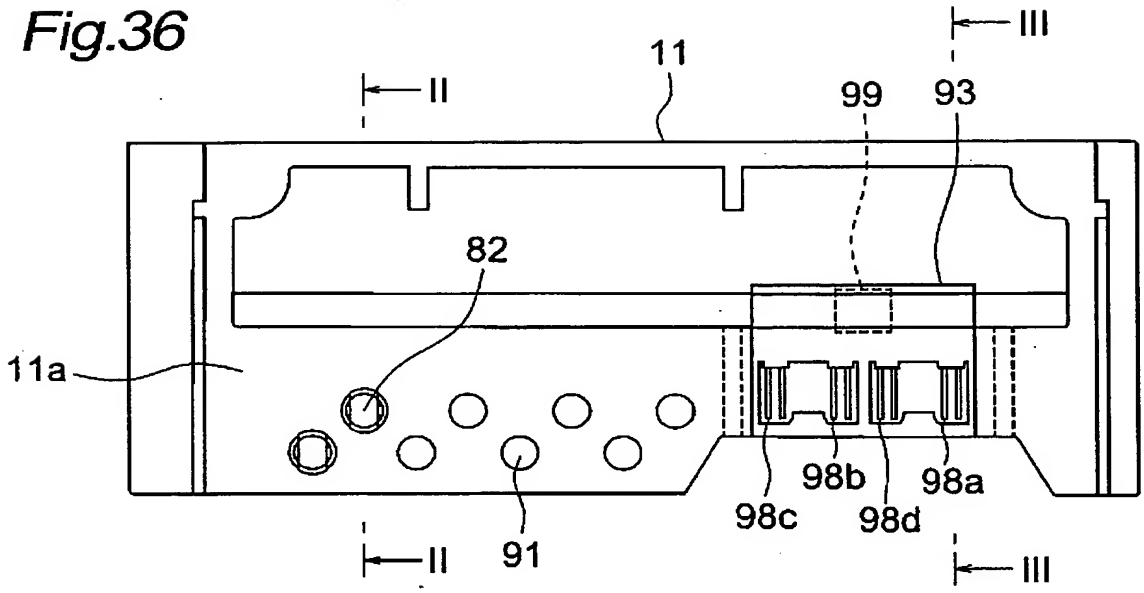
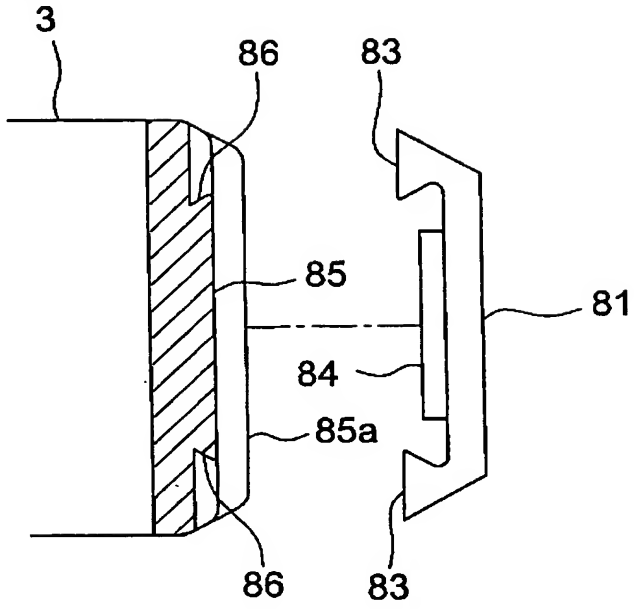
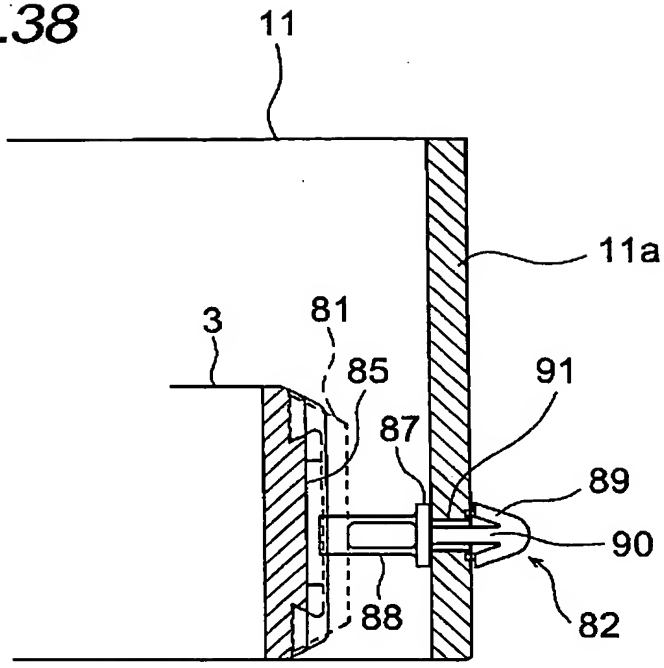


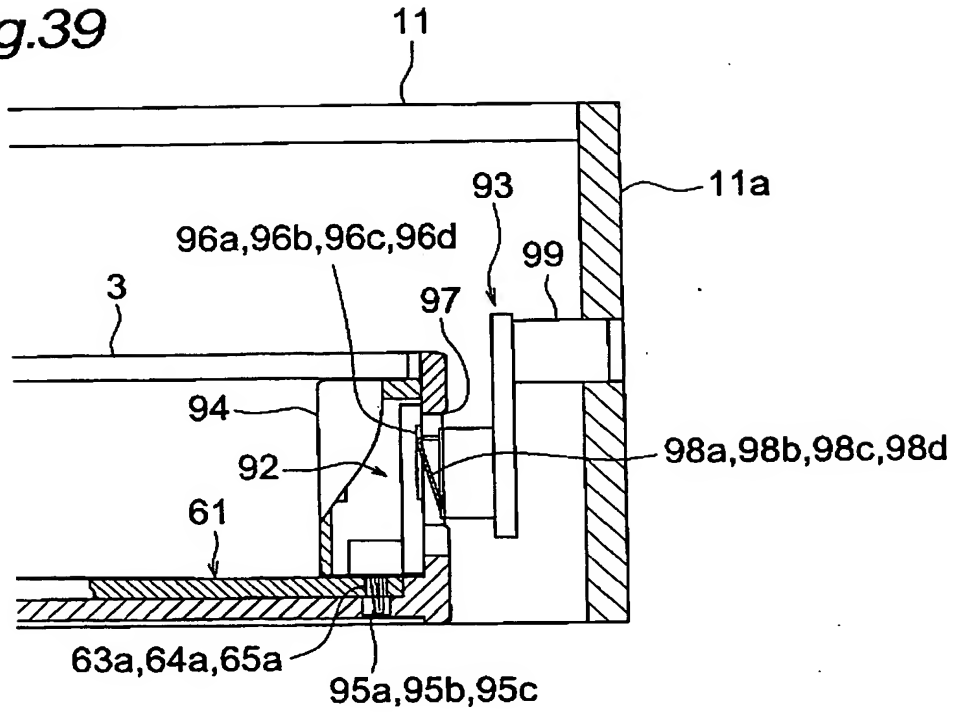
Fig.37



Flg.38



Flg.39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11a
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96a,96b,96c,96d
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98a,98b,98c,98d
92
61
63a,64a,65a
95a,95b,95c